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Kang Soo Seo

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EXAMINER

JONES, HEATHER RAE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/766,239	<b>Applicant(s)</b> SEO ET AL.	
	<b>Examiner</b> HEATHER R. JONES	<b>Art Unit</b> 2481	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,12-15,18-21,26,27,32,33,38,39 and 44-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,12-15,18-21,26,27,32,33,38,39 and 44-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/4/2010,11/30/2010</u>                                      | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 14, 2010 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 2, 12-15, 18-21, 26, 27, 32, 33, 38, 39, and 44-53 have been considered but are moot in view of the new ground(s) of rejection.

### ***35 USC § 101***

3. The medium claims 1, 2, 12, 13, 14, and 15 are considered to be statutory because they are directed to only non-transitory computer-readable mediums. The method claims 18, 19, 26, 27, 32, 33, 46, and 47 are considered statutory because a human could not perform recording and reproducing first and second stream files, or reproducing the at least one still picture and associated graphic data synchronously and the audio data asynchronously with respect to the one still picture unit without the aid of a machine. The apparatus claims 20, 21, 38, 39, 44, 45, and 48-53 are considered

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statutory because the specification does not disclose that the apparatus can be implemented solely using software.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 12-15, 18-21, 26, 27, 32, 33, 38, 39, and 44-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (U.S. Patent Application Publication 2002/0145702) in view of Ando et al. (U.S. Patent 7,054,545) in view of Moon (U.S. Patent 6,771,891) in view of Mori et al. (U.S. Patent 6,529,683) in view of Jung et al. (U.S. Patent Application Publication 2004/0081434).

Recording claim 1, Kato et al. discloses a non-transitory computer-readable medium having a data structure for managing reproduction of at least one still picture, comprising: a navigation area storing at least one playlist file (Fig. 14) and first and second clip information files (Figs. 2, 14; paragraph [0195]), the at least one playlist file including at least one playitem and at least one sub-playitem, the at least one playitem indicating an in-point and an out-point of the first stream file for reproducing at least one still picture, the at least one sub-playitem indicating an in-point and an out-point of a second stream file for reproducing audio data (Figs. 2, 3, 7, 14, 32, and 40; paragraph [0195]), the first

clip information file including a first entry point map, the first entry point map including at least one entry point mapping between a presentation time and a unit of the first stream file, the second clip information file including a second entry point map, the second entry point map including at least one entry point mapping between a presentation time and a unit of the second stream (Figs. 7 and 70; paragraph [0195] - the EP\_map is made up of a presentation time stamp (PTS) and a data address in the AV stream of the AV stream accessing unit associated with the PTS; paragraph [0345] -the audio and video streams each have their own EP\_map), and wherein the stream files, the playlist file, and the clip information files are separate from each other and have different file extensions (Fig. 14). However, Kato et al. fails to disclose a data area storing a first and second stream files, the first stream file including presentation data, the second stream file including audio data, the presentation data being divided into at least one still picture unit, the at least one still picture unit including at least one still picture and associated graphic data, the at least one still picture unit not including the audio data; the at least one playitem further including duration information indicating whether to display at least one still picture for one of a finite and an infinite period of time, wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Ando et al. reference, Ando et al. discloses a computer readable medium having a data structure for managing reproduction duration of still pictures, comprising: a data area storing a first stream file for presentation data and a second stream file for audio data (Figs. 1 and 7; col. 5, lines 29-33), the presentation data being divided into at least one of still picture unit (Figs. 1, 4, and 11); a clip information area storing at least one clip information file, each clip information file being associated with at least one stream file stored in a data area, the clip information file providing a map for the associated stream file, each map mapping representation time information to address information for the associated stream file (Figs. 3 and 4; col. 7, lines 7-63; col. 9, lines 1-33); and a navigation area storing at least one playlist (col. 11, lines 12-15), the playlist referencing the clip information file and including at least one playitem, the at least one playitem indicating at least one of the still picture unit to reproduce and providing duration information for display of the at least one still picture in the still picture unit (Figs. 7, 8, 10, and 11; col. 39, lines 38-50); wherein the first duration information indicates whether to display at least one still picture for one of a finite and an infinite period of time, and wherein playtime further includes second duration information indicating a length in time to display at least one still picture when the first duration information indicates to display the still picture for a finite period of time (col. 39, lines 38-63 – audio and still information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the duration information in the

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navigation information as disclosed by Ando et al. in the medium disclosed by Kato et al. in order for the playlist to perform more efficiently by knowing the duration of each playtime thereby creating an overall better viewing experience. Furthermore, Official Notice is taken that both the concept and advantages of having still pictures linked to associated graphic data, wherein the associated graphic data is a subtitle, a sub-picture or a caption, and to display the associated graphic data and still picture synchronously are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have reproduced captions synchronously with the still pictures in the tangible computer-readable medium disclosed by Kato et al. in view of Ando et al. in order to provide more insight to the still pictures by using captions. However, Kato et al. in view of Ando et al. still fail to disclose that the still picture unit includes at least one still picture and associated graphic data, the at least one still picture unit not including the audio data; wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Moon reference, Moon discloses a tangible computer-readable medium having a data structure for managing reproduction of at least one still picture, wherein the still picture unit includes at least one still picture and

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associated graphic data (col. 9, lines 47-49 – the still picture unit is the VOBU and the associated graphic data is the graphic data pack).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included associated graphic data with at least one still picture in the still picture unit as disclosed by Moon in the medium disclosed by Kato in view of Ando et al. in order to keep all associated data together so the system can find the information faster. However, Kato et al. in view of Ando et al. in view of Moon still fail to disclose that the at least one still picture unit not including the audio data, wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Mori et al. reference, Mori et al. discloses a computer-readable medium comprising at least one still pictures unit, wherein the at least one still picture unit not including the audio data (Fig. 23 – P\_VOB #1 is the still picture unit and AOB #1 is a separate audio unit); and a mode that allows the user to enter a "browsable" mode, wherein the still pictures are reproduced independently from the audio data and the still pictures are updated based on the user's instructions (col. 4, line 57 - col. 5, line 6; col. 36, lines 49-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included produced the audio



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asynchronously from the video data as disclosed by Mori in the computer-readable medium disclosed by Kato et al. in view of Ando et al. in view of Moon in order to allow the user to enter a browse mode and be able to look at the still pictures at their own pace. Furthermore, Kato et al. discloses a sub-playitem that includes the in and out time of the audio information to be reproduced (Fig. 7; paragraph [0345] –the audio and video streams each have their own EP\_map). However, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem.

Referring to the Jung et al. reference, Jung et al. discloses a computer-readable medium comprising that the at least one still picture and the associated graphic data (subtitle) in a still picture unit being reproduced synchronously based on the at least one playitem (Fig. 18; paragraph [0152] - the subtitles are linked to the playitem to be reproduced together).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the graphic data that is to be synchronized with the clip information in the playitem as disclosed by Jung et al. in the computer readable medium disclosed by Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in order to ensure the graphic data is synchronized with the correct corresponding clip information.

Regarding claim **2**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claim 1 including that the entry point of the first entry point map provides an address of the still picture (Kato et al.: Figs. 2, 14, 63; paragraph [0195]).

Regarding claim **12**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claim 1 including that the presentation data is multiplexed into a transport stream on a still picture unit basis (Ando et al: col. 19, lines 16-18 – when the presentation data is reproduced the data has to be demultiplexed, therefore the data is originally multiplexed).

Regarding claim **13**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claims 1 and 12 including that each elementary stream of the presentation data are aligned within the still picture unit (Ando et al: Figs. 1, 32, and 36; col. 33, lines 41-52 – elementary streams are included in MPEG).

Regarding claim **14**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claims 1, 12, and 13 including that each elementary stream is a packetized elementary stream (Ando et al.: Figs. 1, 32, and 36; col. 33, lines 41-52 – elementary streams are included in MPEG).

Regarding claim **15**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claims 1 and 12-14 including that each still picture unit includes one packet from each packetized elementary stream (Ando et al: Figs. 1, 32, and 36; col. 33, lines 41-52 – elementary streams are included in MPEG).

Regarding claim **18**, Kato et al. discloses a method of recording a data structure for managing reproduction of at least one still picture on a recording medium, comprising: recording at least one playlist file, and first and second clip information files, the playlist file including at least one playitem and at least one sub-playitem, the at least one playitem indicating an in-point and an out-point of a first stream file for reproducing at least one still picture, the sub-playitem indicating an in-point and an out-point of a second stream file for reproducing audio data (Figs. 2, 3, 7, 14, 32, and 40; paragraph [0195]), the first clip information file including a first entry point map, the first entry point map including at least one entry point mapping between a presentation time and a unit of the first stream file, and the second clip information file including a second entry point map, the second entry point map including at least one entry point mapping between a presentation time and a unit of the second stream file (Figs. 7 and 70; paragraphs [0195] and [0345]), and wherein the stream files, the playlist file, and the clip information files are separate from each other and have different file extensions (Fig. 14). However, Kato et al. fails to disclose a data area recording first and second stream files, the first stream file including presentation data, the

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second stream file including audio data, the presentation data being divided into at least one of still picture unit, the still picture unit including at least a still picture and associated graphic data, the at least one still picture unit not including the audio data; the playitem further including duration information indicating whether to display the still picture for one of a finite and in infinite period of time, wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Ando et al. reference, Ando et al. discloses a computer readable medium having a data structure for managing reproduction duration of still pictures, comprising: a data area storing a first stream file for presentation data and a second stream file for audio data (Figs. 1 and 7; col. 5, lines 29-33), the presentation data being divided into at least one of still picture unit (Figs. 1, 4, and 11); a clip information area storing at least one clip information file, each clip information file being associated with at least one stream file stored in a data area, the clip information file providing a map for the associated stream file, each map mapping representation time information to address information for the associated stream file (Figs. 3 and 4; col. 7, lines 7-63; col. 9, lines 1-33); and a navigation area storing at least one playlist (col. 11, lines 12-15), the playlist referencing the clip information file and including at least one playitem, the playitem indicating at least one of the still picture unit to reproduce and providing

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duration information for display of the still picture in the still picture unit (Figs. 7, 8, 10, and 11; col. 39, lines 38-50); wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time, and wherein playtime further includes second duration information indicating a length in time to display the still picture when the first duration information indicates to display the still picture for a finite period of time (col. 39, lines 38-63 – audio and still information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the duration information in the navigation information as disclosed by Ando et al. in the method disclosed by Kato et al. in order for the playlist to perform more efficiently by knowing the duration of each playtime thereby creating an overall better viewing experience. Furthermore, Official Notice is taken that both the concept and advantages of having still pictures linked to associated graphic data, wherein the associated graphic data is a subtitle, a sub-picture or a caption, and to display the associated graphic data and still picture synchronously are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have reproduced captions synchronously with the still pictures in the method disclosed by Kato et al. in view of Ando et al. in order to provide more insight to the still pictures by using captions. However, Kato et al. in view of Ando et al. still fail to disclose that the still picture unit includes at least one still picture and associated graphic data, the

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at least one still picture unit not including the audio data; wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Moon reference, Moon discloses a computer-readable medium having a data structure for managing reproduction of at least one still picture, wherein the still picture unit includes at least one still picture and associated graphic data (col. 9, lines 47-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included associated graphic data with at least one still picture in the still picture unit as disclosed by Moon in the medium disclosed by Kato in view of Ando et al. in order to keep all associated data together so the system can find the information faster. However, Kato et al. in view of Ando et al. in view of Moon still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Mori et al. reference, Mori et al. discloses a computer-readable medium comprising at least one still pictures unit, wherein the at least one still picture unit not including the audio data (Fig. 23 – P\_VOB #1 is the still

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picture unit and AOB #1 is a separate audio unit); and a mode that allows the user to enter a "browsable" mode, wherein the still pictures are reproduced independently from the audio data and the still pictures are updated based on the user's instructions (col. 4, line 57 - col. 5, line 6; col. 36, lines 49-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included produced the audio asynchronously from the video data as disclosed by Mori in the method disclosed by Kato et al. in view of Ando et al. in view of Moon in order to allow the user to enter a browse mode and be able to look at the still pictures at their own pace. Furthermore, Kato et al. discloses a sub-playitem that includes the in and out time of the audio information to be reproduced (Fig. 7; paragraph [0345] –the audio and video streams each have their own EP\_map). However, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem.

Referring to the Jung et al. reference, Jung et al. discloses a computer-readable medium comprising that the at least one still picture and the associated graphic data (subtitle) in a still picture unit being reproduced synchronously based on the at least one playitem (Fig. 18; paragraph [0152] - the subtitles are linked to the playitem to be reproduced together).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the graphic data that is to be

synchronized with the clip information in the playitem as disclosed by Jung et al. in the computer readable medium disclosed by Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in order to ensure the graphic data is synchronized with the correct corresponding clip information.

Recording claim **19**, Kato et al. discloses a method of reproducing a data structure for managing reproduction of at least one still image on a recording medium, comprising: reproducing at least one first and second stream files in a data area of the recording medium (Figs. 2, 14; paragraph [0195]), reproducing at least one playlist file, and first and second clip information files, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating an in-point and an out-point of a first stream file for reproducing at least one still picture, the sub-playitem indicating an in-point and an out-point of a second stream file for reproducing audio data (Figs. 2, 3, 7, 14, 32, and 40; paragraph [0195]), the first clip information file including a first entry point map, the first entry point map including at least one entry point mapping between a presentation time and a unit of the first stream file, and the second clip information file including a second entry point map, the second entry point map including at least one entry point mapping between a presentation time and a unit of the second stream file (Figs. 7 and 70; paragraphs [0195] and [0345]), and wherein the stream files, the playlist files, and the clip information files are separate from each other and have different files extensions (Fig. 14). However, Kato et al. fails to disclose a data area reproducing first and second stream files,



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the first stream file including presentation data, the second stream file including audio data, the presentation data being divided into at least one of still picture unit, the still picture unit including at least a still picture and associated graphic data, the at least one still picture unit not including audio data; the playitem further including duration information indicating whether to display the still picture for one of a finite and in infinite period of time, wherein the presentation data such that a still picture and the associated graphic data in a still picture unit being reproduced synchronously; wherein the audio data is reproduced independently from the still picture unit.

Referring to the Ando et al. reference, Ando et al. discloses a computer readable medium having a data structure for managing reproduction duration of still pictures, comprising: a data area storing a first stream file for presentation data and a second stream file for audio data (Figs. 1 and 7; col. 5, lines 29-33), the presentation data being divided into at least one of still picture unit (Figs. 1, 4, and 11); a clip information area storing at least one clip information file, each clip information file being associated with at least one stream file stored in a data area, the clip information file providing a map for the associated stream file, each map mapping representation time information to address information for the associated stream file (Figs. 3 and 4; col. 7, lines 7-63; col. 9, lines 1-33); and a navigation area storing at least one playlist (col. 11, lines 12-15), the playlist referencing the clip information file and including at least one playitem, the playitem indicating at least one of the still picture unit to reproduce and providing

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duration information for display of the still picture in the still picture unit (Figs. 7, 8, 10, and 11; col. 39, lines 38-50); wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time, and wherein playtime further includes second duration information indicating a length in time to display the still picture when the first duration information indicates to display the still picture for a finite period of time (col. 39, lines 38-63 – audio and still information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the duration information in the navigation information as disclosed by Ando et al. in the method disclosed by Kato et al. in order for the playlist to perform more efficiently by knowing the duration of each playtime thereby creating an overall better viewing experience. Furthermore, Official Notice is taken that both the concept and advantages of having still pictures linked to associated graphic data, wherein the associated graphic data is a subtitle, a sub-picture or a caption, and to display the associated graphic data and still picture synchronously are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have reproduced captions synchronously with the still pictures in the method disclosed by Kato et al. in view of Ando et al. in order to provide more insight to the still pictures by using captions. However, Kato et al. in view of Ando et al. still fail to disclose that the still picture unit includes at least one still picture and associated graphic data, the

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at least one still picture unit not including the audio data; and that the audio data is reproduced independently from the still picture unit.

Referring to the Moon reference, Moon discloses a computer-readable medium having a data structure for managing reproduction of at least one still picture, wherein the still picture unit includes at least one still picture and associated graphic data (col. 9, lines 47-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included associated graphic data with at least one still picture in the still picture unit as disclosed by Moon in the medium disclosed by Kato in view of Ando et al. in order to keep all associated data together so the system can find the information faster. However, Kato et al. in view of Ando et al. in view of Moon still fail to disclose that the at least one still picture unit not including the audio data and the audio data is reproduced independently from the still picture unit.

Referring to the Mori et al. reference, Mori et al. discloses a computer-readable medium comprising at least one still pictures unit, wherein the at least one still picture unit not including the audio data (Fig. 23 – P\_VOB #1 is the still picture unit and AOB #1 is a separate audio unit); and a mode that allows the user to enter a "browsable" mode, wherein the still pictures are reproduced independently from the audio data and the still pictures are updated based on the user's instructions (col. 4, line 57 - col. 5, line 6; col. 36, lines 49-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included produced the audio asynchronously from the video data as disclosed by Mori in the method disclosed by Kato et al. in view of Ando et al. in view of Moon in order to allow the user to enter a browse mode and be able to look at the still pictures at their own pace. Furthermore, Kato et al. discloses a sub-playitem that includes the in and out time of the audio information to be reproduced (Fig. 7; paragraph [0345] –the audio and video streams each have their own EP\_map). However, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem.

Referring to the Jung et al. reference, Jung et al. discloses a computer-readable medium comprising that the at least one still picture and the associated graphic data (subtitle) in a still picture unit being reproduced synchronously based on the at least one playitem (Fig. 18; paragraph [0152] - the subtitles are linked to the playitem to be reproduced together).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the graphic data that is to be synchronized with the clip information in the playitem as disclosed by Jung et al. in the computer readable medium disclosed by Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in order to ensure the graphic data is synchronized with the correct corresponding clip information.

Recording claim **20**, Kato et al. discloses an apparatus for recording a data structure for managing reproduction of at least one still image on a recording medium, comprising: a pick up configured to record data on the recording medium (Figs. 1 and 108); a controller configured to record first and second stream files in a data area of the recording medium (Figs. 2, 14; paragraph [0195]), and configured to record at least one playlist file, and first and second clip information files, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating an in-point and an out-point of a first stream file for reproducing, the sub-playitem indicating an in-point and an out-point of a second stream file for reproducing audio data (Figs. 2, 3, 7, 14, 32, and 40; paragraph [0195]), the first clip information file including a first entry point map, the first entry point map including at least one entry point mapping between a presentation time and a unit of the first stream file, and the second clip information file including a second entry point map, the second entry point map including at least one entry point mapping between a presentation time and a unit of the second stream file (Figs. 7 and 70; paragraphs [0195] and [0345]), and wherein the stream files, the playlist files, and the clip information files are separate from each other and have different files extensions (Fig. 14). However, Kato et al. fails to disclose a data area recording first and second stream files, the first stream file including presentation data, the second stream file including audio data, the presentation data being divided into at least one of still picture unit, the still picture unit including at least a still picture and associated graphic

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data, the at least one still picture unit not including audio data; the playitem further including duration information indicating whether to display the still picture for one of a finite and in infinite period of time, wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Ando et al. reference, Ando et al. discloses a computer readable medium having a data structure for managing reproduction duration of still pictures, comprising: a data area storing a first stream file for presentation data and a second stream file for audio data (Figs. 1 and 7; col. 5, lines 29-33), the presentation data being divided into at least one of still picture unit (Figs. 1, 4, and 11); a clip information area storing at least one clip information file, each clip information file being associated with at least one stream file stored in a data area, the clip information file providing a map for the associated stream file, each map mapping representation time information to address information for the associated stream file (Figs. 3 and 4; col. 7, lines 7-63; col. 9, lines 1-33); and a navigation area storing at least one playlist (col. 11, lines 12-15), the playlist referencing the clip information file and including at least one playitem, the playitem indicating at least one of the still picture unit to reproduce and providing duration information for display of the still picture in the still picture unit (Figs. 7, 8, 10, and 11; col. 39, lines 38-50); wherein the first duration information

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indicates whether to display the still picture for one of a finite and an infinite period of time, and wherein playtime further includes second duration information indicating a length in time to display the still picture when the first duration information indicates to display the still picture for a finite period of time (col. 39, lines 38-63 – audio and still information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the duration information in the navigation information as disclosed by Ando et al. in the apparatus disclosed by Kato et al. in order for the playlist to perform more efficiently by knowing the duration of each playtime thereby creating an overall better viewing experience. Furthermore, Official Notice is taken that both the concept and advantages of having still pictures linked to associated graphic data, wherein the associated graphic data is a subtitle, a sub-picture or a caption, and to display the associated graphic data and still picture synchronously are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have reproduced captions synchronously with the still pictures in the apparatus disclosed by Kato et al. in view of Ando et al. in order to provide more insight to the still pictures by using captions. However, Kato et al. in view of Ando et al. still fail to disclose that the still picture unit includes at least one still picture and associated graphic data, the at least one still picture unit not including the audio data; and wherein the at least one still picture and the associated graphic data in a still picture unit being

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reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Moon reference, Moon discloses a computer-readable medium having a data structure for managing reproduction of at least one still picture, wherein the still picture unit includes at least one still picture and associated graphic data (col. 9, lines 47-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included associated graphic data with at least one still picture in the still picture unit as disclosed by Moon in the medium disclosed by Kato in view of Ando et al. in order to keep all associated data together so the system can find the information faster. However, Kato et al. in view of Ando et al. in view of Moon still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Mori et al. reference, Mori et al. discloses a computer-readable medium comprising at least one still pictures unit, wherein the at least one still picture unit not including the audio data (Fig. 23 – P\_VOB #1 is the still picture unit and AOB #1 is a separate audio unit); and a mode that allows the user to enter a "browsable" mode, wherein the still pictures are reproduced



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independently from the audio data and the still pictures are updated based on the user's instructions (col. 4, line 57 - col. 5, line 6; col. 36, lines 49-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included produced the audio asynchronously from the video data as disclosed by Mori in the method disclosed by Kato et al. in view of Ando et al. in view of Moon in order to allow the user to enter a browse mode and be able to look at the still pictures at their own pace. Furthermore, Kato et al. discloses a sub-playitem that includes the in and out time of the audio information to be reproduced (Fig. 7; paragraph [0345] –the audio and video streams each have their own EP\_map). However, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem.

Referring to the Jung et al. reference, Jung et al. discloses a computer-readable medium comprising that the at least one still picture and the associated graphic data (subtitle) in a still picture unit being reproduced synchronously based on the at least one playitem (Fig. 18; paragraph [0152] - the subtitles are linked to the playitem to be reproduced together).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the graphic data that is to be synchronized with the clip information in the playitem as disclosed by Jung et al. in the computer readable medium disclosed by Kato et al. in view of Ando et al.

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in view of Moon in view of Mori et al. in order to ensure the graphic data is synchronized with the correct corresponding clip information.

Recording claim **21**, Kato et al. discloses an apparatus for reproducing a data structure for managing reproduction of at least one still image on a recording medium, comprising: a pick up configured to reproduce data on the recording medium (Figs. 1 and 108); a controller configured to reproduce first and second stream files in a data area of the recording medium (Figs. 2, 14; paragraph [0195]) and to reproduce at least one playlist file, and first and second clip information file, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating an in-point and an out-point of a first stream file for reproducing at least one still picture, the sub-playitem indicating an in-point and an out-point of a second stream file for reproducing audio data (Figs. 2, 3, 7, 14, 32, and 40; paragraph [0195]), the first clip information file including a first entry point map, the first entry point map including at least one entry point mapping between a presentation time and a unit of the first stream file, and the second clip information file including a second entry point map, the second entry point map including at least one entry point mapping between a presentation time and a unit of the second stream file (Figs. 7 and 70; paragraphs [0195] and [0345]), and wherein the stream files, the playlist files, and the clip information files are separate from each other and have different files extensions (Fig. 14). However, Kato et al. fails to disclose a data area recording first and second stream files, the first stream file including presentation data, the second stream

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file including audio data, the presentation data being divided into at least one of still picture unit, the still picture unit including at least a still picture and associated graphic data, the at least one still picture unit not including the audio data; the playitem further including duration information indicating whether to display the still picture for one of a finite and in infinite period of time, wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Ando et al. reference, Ando et al. discloses a computer readable medium having a data structure for managing reproduction duration of still pictures, comprising: a data area storing a first stream file for presentation data and a second stream file for audio data (Figs. 1 and 7; col. 5, lines 29-33), the presentation data being divided into at least one of still picture unit (Figs. 1, 4, and 11); a clip information area storing at least one clip information file, each clip information file being associated with at least one stream file stored in a data area, the clip information file providing a map for the associated stream file, each map mapping representation time information to address information for the associated stream file (Figs. 3 and 4; col. 7, lines 7-63; col. 9, lines 1-33); and a navigation area storing at least one playlist (col. 11, lines 12-15), the playlist referencing the clip information file and including at least one playitem, the playitem indicating at least one of the still picture unit to reproduce and providing

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duration information for display of the still picture in the still picture unit (Figs. 7, 8, 10, and 11; col. 39, lines 38-50); wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time, and wherein playtime further includes second duration information indicating a length in time to display the still picture when the first duration information indicates to display the still picture for a finite period of time (col. 39, lines 38-63 – audio and still information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the duration information in the navigation information as disclosed by Ando et al. in the apparatus disclosed by Kato et al. in order for the playlist to perform more efficiently by knowing the duration of each playtime thereby creating an overall better viewing experience. Furthermore, Official Notice is taken that both the concept and advantages of having still pictures linked to associated graphic data, wherein the associated graphic data is a subtitle, a sub-picture or a caption, and to display the associated graphic data and still picture synchronously are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have reproduced captions synchronously with the still pictures in the apparatus disclosed by Kato et al. in view of Ando et al. in order to provide more insight to the still pictures by using captions. However, Kato et al. in view of Ando et al. still fail to disclose that the audio data is reproduced asynchronously and independently from the still picture

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unit. However, Kato et al. in view of Ando et al. still fail to disclose that the still picture unit includes at least one still picture and associated graphic data, the at least one still picture unit not including the audio data; wherein the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem.

Referring to the Moon reference, Moon discloses a computer-readable medium having a data structure for managing reproduction of at least one still picture, wherein the still picture unit includes at least one still picture and associated graphic data (col. 9, lines 47-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included associated graphic data with at least one still picture in the still picture unit as disclosed by Moon in the medium disclosed by Kato in view of Ando et al. in order to keep all associated data together so the system can find the information faster. However, Kato et al. in view of Ando et al. in view of Moon still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem, and wherein the audio data is reproduced independently from the at least one still picture unit based on the at least one sub-playitem..

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Referring to the Mori et al. reference, Mori et al. discloses a computer-readable medium comprising at least one still pictures unit, wherein the at least one still picture unit not including the audio data (Fig. 23 – P\_VOB #1 is the still picture unit and AOB #1 is a separate audio unit); and a mode that allows the user to enter a "browsable" mode, wherein the still pictures are reproduced independently from the audio data and the still pictures are updated based on the user's instructions (col. 4, line 57 - col. 5, line 6; col. 36, lines 49-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included produced the audio asynchronously from the video data as disclosed by Mori in the method disclosed by Kato et al. in view of Ando et al. in view of Moon in order to allow the user to enter a browse mode and be able to look at the still pictures at their own pace. Furthermore, Kato et al. discloses a sub-playitem that includes the in and out time of the audio information to be reproduced (Fig. 7; paragraph [0345] –the audio and video streams each have their own EP\_map). However, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem.

Referring to the Jung et al. reference, Jung et al. discloses a computer-readable medium comprising that the at least one still picture and the associated graphic data (subtitle) in a still picture unit being reproduced synchronously

based on the at least one playitem (Fig. 18; paragraph [0152] - the subtitles are linked to the playitem to be reproduced together).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the graphic data that is to be synchronized with the clip information in the playitem as disclosed by Jung et al. in the computer readable medium disclosed by Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in order to ensure the graphic data is synchronized with the correct corresponding clip information.

Regarding claims **26** and **27**, grounds for rejecting claims 12 and 13 applies for claims 26 and 27 respectively in their entireties.

Regarding claims **32** and **33**, grounds for rejecting claims 12 and 13 applies for claims 32 and 33 respectively in their entireties.

Regarding claims **38** and **39**, grounds for rejecting claims 12 and 13 applies for claims 38 and 39 respectively in their entireties.

Regarding claims **44** and **45**, grounds for rejecting claims 12 and 13 applies for claims 44 and 45 respectively in their entireties.

Regarding claim **46**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claim 19 including that the recording medium is a read-only recording medium (Kato et al.: paragraph [0494]).

Regarding claim **47**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously

discussed with respect to claim 19 including that the recording medium is a recordable recording medium (Kato et al.: paragraph [0494]).

Regarding claims **48** and **49**, grounds for rejecting claims 46 and 47 applies for claims 48 and 49 respectively in their entireties.

Regarding claim **50**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claim 20 including that the apparatus further comprises: an encoder (15) configured to encode data; a multiplexer (16) configured to multiplex the encoded data to create at least one transport stream; and a source packetizer (19) configured to packetize transport packets into source packets (Kato et al.: Fig. 1; paragraphs [0137]-[0139]).

Regarding claim **51**, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in view of Jung et al. discloses all the limitations as previously discussed with respect to claim 21 including that the apparatus further comprises: a source depacketizer (31) configured to depacketize source packets into transport packets; a demultiplexer (26) configured to demultiplex the transport packets into encoded data; and a decoder (27) configured to decode the encoded data to original data to be displayed (Kato et al.: Fig. 1; paragraphs [0153] and [0154]).

Regarding claim **52**, Kato et al. discloses an apparatus for reproducing a data structure for managing reproduction of at least one still image on a recording medium, comprising: a pick up configured to reproduce data on the



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recording medium (Figs. 1 and 108); a controller configured to reproduce first and second stream files in a data area of the recording medium (Figs. 2, 14; paragraph [0195]) and to reproduce at least one playlist file, and first and second clip information file, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating an in-point and an out-point of a first stream file for reproducing at least one still picture, the sub-playitem indicating an in-point and an out-point of a second stream file for reproducing audio data (Figs. 2, 3, 7, 14, 32, and 40; paragraph [0195]), the first clip information file including a first entry point map, the first entry point map including at least one entry point mapping between a presentation time and a unit of the first stream file, and the second clip information file including a second entry point map, the second entry point map including at least one entry point mapping between a presentation time and a unit of the second stream file (Figs. 7 and 70; paragraphs [0195] and [0345]), and wherein the stream files, the playlist files, and the clip information files are separate from each other and have different files extensions (Fig. 14). However, Kato et al. fails to disclose a data area recording first and second stream files, the first stream file including presentation data, the second stream file including audio data, the presentation data being divided into at least one of still picture unit, the still picture unit including at least a still picture and associated graphic data, the at least one still picture unit not including the audio data; the playitem further including duration information indicating whether to display the still picture for one of a finite and in infinite period of time, wherein the

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presentation data such that a still picture and the associated graphic data in a still picture unit are reproduced synchronously; wherein the audio data is reproduced asynchronously and independently from the still picture unit.

Referring to the Ando et al. reference, Ando et al. discloses a computer readable medium having a data structure for managing reproduction duration of still pictures, comprising: a data area storing a first stream file for presentation data and a second stream file for audio data (Figs. 1 and 7; col. 5, lines 29-33), the presentation data being divided into at least one of still picture unit (Figs. 1, 4, and 11); a clip information area storing at least one clip information file, each clip information file being associated with at least one stream file stored in a data area, the clip information file providing a map for the associated stream file, each map mapping representation time information to address information for the associated stream file (Figs. 3 and 4; col. 7, lines 7-63; col. 9, lines 1-33); and a navigation area storing at least one playlist (col. 11, lines 12-15), the playlist referencing the clip information file and including at least one playitem, the playitem indicating at least one of the still picture unit to reproduce and providing duration information for display of the still picture in the still picture unit (Figs. 7, 8, 10, and 11; col. 39, lines 38-50); wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time, and wherein playtime further includes second duration information indicating a length in time to display the still picture when the first duration

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information indicates to display the still picture for a finite period of time (col. 39, lines 38-63 – audio and still information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the duration information in the navigation information as disclosed by Ando et al. in the apparatus disclosed by Kato et al. in order for the playlist to perform more efficiently by knowing the duration of each playtime thereby creating an overall better viewing experience. Furthermore, Official Notice is taken that both the concept and advantages of having still pictures linked to associated graphic data, wherein the associated graphic data is a subtitle, a sub-picture or a caption, and to display the associated graphic data and still picture synchronously are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have reproduced captions synchronously with the still pictures in the apparatus disclosed by Kato et al. in view of Ando et al. in order to provide more insight to the still pictures by using captions. However, Kato et al. in view of Ando et al. still fail to disclose that the audio data is reproduced asynchronously and independently from the still picture unit. However, Kato et al. in view of Ando et al. still fail to disclose that the still picture unit includes at least one still picture and associated graphic data, the at least one still picture unit not including the audio data; and that the audio data is reproduced asynchronously and independently from the still picture unit.

Referring to the Moon reference, Moon discloses a computer-readable medium having a data structure for managing reproduction of at least one still picture, wherein the still picture unit includes at least one still picture and associated graphic data (col. 9, lines 47-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included associated graphic data with at least one still picture in the still picture unit as disclosed by Moon in the medium disclosed by Kato in view of Ando et al. in order to keep all associated data together so the system can find the information faster. However, Kato et al. in view of Ando et al. in view of Moon still fail to disclose that the at least one still picture unit not including the audio data and the audio data is reproduced asynchronously and independently from the still picture unit.

Referring to the Mori et al. reference, Mori et al. discloses a computer-readable medium comprising at least one still pictures unit, wherein the at least one still picture unit not including the audio data (Fig. 23 – P\_VOB #1 is the still picture unit and AOB #1 is a separate audio unit); and a mode that allows the user to enter a "browsable" mode, wherein the still pictures are reproduced independently from the audio data and the still pictures are updated based on the user's instructions (col. 4, line 57 - col. 5, line 6; col. 36, lines 49-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included produced the audio asynchronously from the video data as disclosed by Mori in the method disclosed

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by Kato et al. in view of Ando et al. in view of Moon in order to allow the user to enter a browse mode and be able to look at the still pictures at their own pace. Furthermore, Kato et al. discloses a sub-playitem that includes the in and out time of the audio information to be reproduced (Fig. 7; paragraph [0345] –the audio and video streams each have their own EP\_map). However, Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. still fail to disclose that the at least one still picture and the associated graphic data in a still picture unit being reproduced synchronously based on the at least one playitem.

Referring to the Jung et al. reference, Jung et al. discloses a computer-readable medium comprising that the at least one still picture and the associated graphic data (subtitle) in a still picture unit being reproduced synchronously based on the at least one playitem (Fig. 18; paragraph [0152] - the subtitles are linked to the playitem to be reproduced together).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the graphic data that is to be synchronized with the clip information in the playitem as disclosed by Jung et al. in the computer readable medium disclosed by Kato et al. in view of Ando et al. in view of Moon in view of Mori et al. in order to ensure the graphic data is synchronized with the correct corresponding clip information.

Regarding claim **53**, grounds for rejecting claim 51 applies for claim 53 in its entirety.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on 571-272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Heather R Jones  
Examiner  
Art Unit 2481

HRJ  
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/Peter-Anthony Pappas/

Supervisory Patent Examiner, Art Unit 2481